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Intellectual Property Law and the Idea of Progress*

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SUMMARY

Many of the features of intellectual property regimes that are most consistent over time arguably reflect the western belief in, or ideology of, material progress. The idea of progress is typified by belief in the limitless accumulation of new knowledge, and the potential for practical application of that knowledge; belief in the essential contribution of the individual mind to generating valuable new insights; and belief that technological development will allow the ever expanding and ever changing desire for material satisfaction to be met. A progressivist world view thus emphasises individual creativity, the practical use of knowledge, and constant innovation and change. These are all factors that play an important role in defining various forms of intellectual property rights.

INTRODUCTION

Introductions to the study of intellectual property law commonly start with an analysis of its policy bases.¹ Two approaches usually dominate: the "economic" approach (property rights as an incentive in a case of market failure in the market for information), and the "personality rights" approach (creations of the mind are a reflection of the creator's personality and therefore subject to the creator's control).² The former is

* This article is based on a paper delivered to the Intellectual Property Law Teachers Workshop, Murdoch University, Perth, February 12-14, 1996. The author is grateful to the participants for comments that have been helpful in shaping this article. The author also thanks Professor Chris Arup for his helpful comments on an earlier draft.

¹ By "policy basis" the author means some external justification in terms of rationale or aim of the system of intellectual property law as a whole, rather than an analysis of its internal coherence.

² Drahos introduces an interesting and rigorous distinction between on the one hand, the instrumentalist approach (*i.e.* intellectual property law increases overall welfare levels and is therefore in the public interest), and on the other hand, the proprietarian approach: individuals naturally deserve property rights in abstract goods: see P. Drahos, *A Philosophy of Intellectual Property* (Dartmouth, 1996).

said to be the bedrock on which common law intellectual property systems are built, the latter prevails in civil law jurisdictions, and is reflected in a greater emphasis on moral rights.³ Sometimes a reference to notions of "fairness" as justification for the grant of intellectual property rights may also be made.⁴

However, in terms of intellectual property as a whole, both personality rights and economic theories are unsatisfactory. The personality rights theory manifestly overstates the case for a moral or ethical relationship between the author and all the various forms of intellectual property,⁵ and exaggerates the notions of authorship and individual creativity. The economic thesis is strong on theory but short on empirical proof supporting the creation of property (-type) rights in intellectual goods⁶; nor does it establish a satisfactory link between economic growth and technological change, and individual welfare. Furthermore, in recent global debates the potential negative social, environmental and cultural impact of adherence to a purely market-based approach to intellectual property has become apparent.⁷

Neither approach places intellectual property law in a wider cultural and social context, and both risk becoming embroiled in historical revisionism. Saunders has pointed out that a view of intellectual property (copyright in his discourse) as a pre-determined process of development—early intellectual property law inevitably leading to the modern rationally complete law—is historicist nonsense.⁸ Finding for the

³ "Moral Rights" is a somewhat misleading translation of the French term "droit moral". The Dutch term is "*persoonlijkheidsrechten*" which would be "personality rights" in English: arguably more enlightening terms.

⁴ Textbooks generally reflect the same approach: see for instance, in Australia, S. Ricketson, *The Law of Intellectual Property* (Law Book Co, 1984) paras 1.6–1.14. Ricketson refers to the natural rights theory and the fairness/incentive theory as the two main theoretical bases for intellectual property law.

⁵ Such a claim may be warranted to some degree in the context of copyright, but is far harder to sustain in the context of trade marks, or circuit layouts, for instance.

⁶ The controversy concerning the demands of economic rationality is endless: a good example is the ongoing doubt as to the causal relationship between patents law and industrialisation during the industrial revolution; Coulter refers to economic historians' unwillingness to assert a causal relationship, see M. Coulter, *Property in Ideas* (Thomas Jefferson University Press, 1991) at p.3. Concerning the history of patent law at that time and more generally, see also C. Macleod, *Inventing the Industrial Revolution: The English Patent System 1660–1800* (Cambridge University Press, 1988). See also concerning the patents system in Australia, Lamberton, Mandeville, Bishop, *Economic effects of the Australian patent system* (AGPS, Canberra, 1982). Famously, this study came to the conclusion that there were no arguments for introducing a patent system if you do not already have it; and that there were also no firm arguments for getting rid of it if you do have it. Machlup in a celebrated US study came to the same conclusion: see Study of Senate Subcommittee on Patents, Trademarkers and Copyrights, Senate Committee on the Judiciary, 85th Congress, 2nd Session, "An economic Review of the Patent System" 15 (Comm Print 1958; by F. Machlup). Other studies have concluded that some industries greatly rely on patents, but that most attach little significance to them: see, e.g. Levin R. *et al.*, "Appropriating the returns from industrial research and development" (1987) 3 *Brookings Papers on Economic Activity* 783.

⁷ For instance in relation to patents and the cost of essential drugs; patenting of genetically modified organisms; patents and loss of control over traditional knowledge; global copyright and the cost of education; and the relationship between patents and biodiversity.

⁸ Saunders D., "Dropping the subject: an argument for a possible history of authorship and the law of copyright", in B. Sherman and A. Strowel (eds), *Of Authors and Origins: Essays on Copyright Law* (Clarendon, 1994).

modern law some cohesive rational basis necessarily implies that "old" intellectual property law did not conform to the modern standards of rationality because it was not yet fully developed to its inevitable goal, while showing the unmistakable footprint of such development. This notion undervalues historical reality.

But should intellectual property law then be seen as no more than an historical phenomenon, an accident of the cultural, economic and socio-political factors at play at some time in the past, that remains with us although the circumstances that gave rise to it have ceased to exist?⁹ Historical analysis is interesting in itself, and helpful in understanding the genesis and process of transformation of the law, but to be significant in terms of future policy development we need to move beyond historical data, to a continuous dialectic between historical fact and the aspirations of theory.

The aim of this article is thus to steer a course between the rocks of excessive instrumentalism and historical reductionism. It explores the relatively stable structures underlying intellectual property law, while recognising it as essentially a cultural institution with historical roots. In that light, it focusses on a central cultural belief underlying much of intellectual property law: the idea of, and the belief in progress. This belief supports the (often unspoken) aspiration of western (European in origin) society and culture, to improve the welfare of mankind by the application of reason. It pervades culture and underscores the basic structure of a market-oriented industrial society; however, this is not to say that the belief has been universal, stable and uniform over the ages, as will be explored below. The belief in progress has greatly influenced the development of intellectual property law; in a "progressivist" society, intellectual property is a crucial institution.

Looking at intellectual property law from the perspective of such a belief may help to understand some of the policy disputes and law reform questions of today. It may also be that contemporary disillusion with many aspects of intellectual property law parallels a crisis in the belief in progress. This crisis encourages policy makers to view markets and market actors as the sole legitimate determinants of the rules of intellectual property law, rather than being guided by a broader view of public welfare and individual well-being.

EVOLUTION OF THE IDEA OF PROGRESS

Emergence

There is some controversy concerning the prevalence of the idea of progress in ancient times, *i.e.* in Greek and Roman civilisation and during the Christian era.¹⁰ The modern

⁹ The author treats intellectual property law here as a consequence of the development of a progressivist materialistic society, not a cause or contributor to it. It is accepted that this discounts the economic importance of intellectual property law. See in this vein, Coulter above n.6, concerning the cause or effect controversy re patents law and industrialisation.

¹⁰ See, *e.g.* R. Nisbet, *History of the Idea of Progress* (Basic Books, 1970). Nisbet's finding of a highly developed idea of progress in the writings of the Christian fathers and of some of the ancients such as Seneca and Lucretius is questioned as overstating the development and importance of the notion in those times in C. Lasch, *The True and Only Heaven; Progress and its Critics* (W.W. Norton, 1991). See also

notion of progress in European thought is said to have emerged in the seventeenth century. But it had at least one important precursor in Roger Bacon,¹¹ who first advocated rational observation and experiment as a method of ascertaining truth, heralding a dynamic rather than static view of truth and knowledge (the notion of humans generating rather than receiving knowledge).¹² Bacon also advocated the notion that knowledge ought to bear fruit in science and industry, *i.e.* that it should have practical application.¹³

Although these early rationalist beliefs, had the potential to undermine the Christian world-view,¹⁴ initially the prevailing notion was that mankind had achieved its supreme state of moral and intellectual development during classic antiquity. The path to true knowledge was by way of veneration and re-examination of the writings, such as they were known, of the "*anciens*". The study of classical authors such as Ptolemy, Aristotle, and Galen, became the mainstay of the pursuit of knowledge, which was still to be *received* rather than *created*. However, the "*modernes*" advocated the supremacy of rational thought and observation over the study of the ancient texts; the future, rather than history, would gradually reveal truth. They eventually "won" the battle with the "*anciens*". Descartes, one of the foremost enlightenment rationalists, prescribed a formula that amounted to an important methodological breakthrough: doubt everything that is not certain, and only what is clear and distinct is certain.¹⁵ His approach signalled the scientific revolution. Because it undermined religious and received truth, it added to the unknown, but it also inspired confidence in the "knowability" of the unknown because of the potential of the new methods of observation and rational deduction.

Knowledge, reason and progress

With the endless possibilities of learning that the method of rational observation and experiment and inductive analysis seemed to disclose, arrived the notion of progress:

J.B. Bury, *The Idea of Progress*, (London, 1920) (a standard work), and M. Ginsberg, "Progress in the modern era", in *Dictionary of the History of Ideas*, Vol.3. Also V. Brome, *The Problems of Progress* (Cassell, 1963), and Holliday R., *The Science of Human Progress*, (Oxford University Press, 1981); S. Pollard, *The Idea of Progress: History and Society* (Penguin, 1971); W. Wagar (ed.), *The Idea of Progress Since the Renaissance* (Wiley, 1969). In anthropology see, *e.g.* J.H. Steward and D.B. Shimkin, "Some mechanisms of socio-cultural evolution", in *Evolution and Man's Progress*. In art see S. Gablik, *Progress in Art* (Rizzoli, New York, 1977). On Marxism/dialectic materialism see J. Plamenatz, *Man and society* (Longmans, 1992), Vol.III: Marx and the idea of progress.

¹¹ Roger Bacon (1214–1292): his views on experimentation and mathematics as sources of knowledge were rejected and opposed at the time and only received recognition in later centuries more able to deal with his revolutionary ideas. Author of *Opus Maius* ("Great Work"), the *Opus Minus* ("Smaller Work") and the *Opus Tertium* ("Third Work"), and the *Communia Naturalium* ("General Principles of Natural Philosophy"), the *Communia Mathematica* ("General Principles of Mathematical Science").

¹² In general see, *e.g.* E. Todd, *The Causes of Progress* (Basil Blackwell, 1987). Also Mokyr J., *The Lever of Riches* (Oxford University Press, 1990).

¹³ Some see this as Bacon's major contribution to the modern world: see Sklair L., *The Sociology of Progress* (Routledge, 1970).

¹⁴ Since they call into doubt predestination and the notion of individual spiritual salvation.

¹⁵ See R. Descartes, *Discourse on Method*, first published in 1637 (Modern Edition, Harvard Classics), Vol.34, Pt 1.

Pascal,¹⁶ Fontenelle¹⁷ and others believed in the continual progress of all mankind based on the cumulative development of knowledge. Although some have maintained that the notion of progress that emerged was a development of Christian notions of progress, in truth it amounted to a rejection of many key Christian beliefs. Where St Augustine referred to the journey from the City of Man to the City of God, he was thinking of individual moral and spiritual progress, whereas the enlightenment emphasised social and material progress. Thus the Christian notions of personal spiritual salvation, predetermination and providence, reflected in Millenarian thought,¹⁸ are clearly contrasted with notions of material and consequent social advancement, the essence of a secular belief in progress. The secular idea of progress emphasises the potential of the here and now, rather than viewing this world as a precursor of, and personal proving ground for, the hereafter.

Knowledge accumulation and rehabilitation of want

Central to the early notion of progress that emerged and took shape in the seventeenth and eighteenth centuries, is the idea that human knowledge is irreversible and cumulative, and that intellectual enlightenment will lead to greater happiness, liberty and justice for all. Unlike in later times, early belief in progress was heroic, in the sense that humans were seen as perfectible creatures, and that all scientists had to do was find the secrets of both natural and social development. Knowledge would one day accumulate sufficiently to allow all men to live as equals on the basis of rationality and individual moral perfection: the potential was boundless. There would be no distinctions between cultures, so-called "primitive" peoples having caught up and fallen in line with the more developed nations.¹⁹ This belief in progress was further bolstered by evolutionism in natural science: Darwin's vision of the natural world as an evolutionary process and not a fixed entity, and development from simple to complex organisms, fitted well with a notion of the perfectibility of mankind based on progressively acquired knowledge.²⁰

¹⁶ Blaise Pascal (1623–1662), French mathematician, was responsible for many mathematical advances (probability theory, integral calculus, etc.) and for attacking the scientific authority of the church, mainly the Jesuits: see his *Lettres Provinciales* (1656–1657).

¹⁷ Bernard le Bovier de Fontenelle (1657–1757), French author, supporter of the *modernes*.

¹⁸ The Christian idea that the end of the world would be predated by a golden age lasting 1000 years.

¹⁹ See Condorcet, Marie Jean Antoine Nicolas de Caritat, Marquis de (1743–94), French mathematician; in his *Sketch of a Historical Picture of the Human Mind* (*Progres de l'Esprit Humain*, 1794) he represented the human race as absolutely perfectible. As to social development: see Charles Fourier (1772–1837), French utopian socialist and radical social reformist; Claude Henri de Rouvroy, Comte de Saint-Simon (1760–1825), founder of French socialism; and Auguste Comte (1798–1857). Comte saw social development as a three-stage process; he desired to put his theoretical understanding into practice to improve society.

²⁰ Charles Darwin, *The Origin of Species by Means of Natural Selection*, 1859. See also Herbert Spencer who espoused evolutionary theories (*Theories of Psychology*, 1855) and "social Darwinism". On the analogy sometimes drawn between technological "progress" and biological evolution, see, e.g. Steindl J., Technical progress and evolution, in Sahal D. (ed.), *Research, Development and Technological Innovation* (Lexington, 1980).

Scientific progress provided mankind with a new mastery over its environment and conditions.²¹ The notion of accumulating knowledge, hand-in-hand with a belief in its practical utility, generated material progress. But as well as a recognition of the potential for material development, the concept of progress also rested on the rehabilitation of want or desire, *i.e.* a personal desire for material improvement became positively evaluated. This was a notion that the ancients or Christians did not always share, seeing moral value in simplicity and frugality.²² It gave rise to a new science of political economy, specifically aimed at maximising the satisfaction of want, *i.e.* material welfare. Material advancement for all was to become a central progressivist notion.

Material progress

The heroic idea of progress that prevailed during the seventeenth, eighteenth and nineteenth century was thus based on three precepts: the cumulativeness of knowledge; the practical usefulness and application of knowledge for the satisfaction of material wants and the solution of social problems; and the belief that the application of knowledge would lead to a perfected man living in perfect conditions in a perfected world. In this vision of a glorious future the belief in progress was akin to a religion.

However, events during the nineteenth and twentieth century sounded the death knell for the belief in a secular utopia. Two world wars, industrial "mayhem", unemployment, labour displacement, environmental degradation and economic uncertainty are realities that undermined the heroic belief in progress, and gave rise to a more modern and relative view. The notions of social and moral/personal perfectibility were largely lost. The remaining essence of the progressivist view is that the irreversible accumulation of knowledge will lead to a never-ending process of improvement; a belief in progress as progress, not progress to an ideal outcome, but progress *as* outcome. The only thing that remains certain is that nothing is certain, and that there will be constant change. Lasch calls this impermanence the essence of modernity. The view of humans as morally and socially perfectible creatures being lost, only the notion of progress as material accumulation and technological change remained.

Thus, in a very basic way, the modern social order with its overriding belief in material progress is founded on science as the motor of new knowledge. Human wants and needs are seen not as natural or inherent but historical and variable. Where the idea of progress leading to an utopian society has mostly fallen away, what we are left with is an idea of progress based on the ongoing satisfaction of new and varying wants through the practical use of science; both generating and satisfying these wants is the essence of a society in progress. Heroic progressivism has moulded into belief in the

²¹ For a different approach which emphasises the inherent determinants of technological change rather than external inputs, see D. Sahal, *Patterns of Technological Innovation* (Addison Wesley, 1981).

²² As Lasch (see above n.10) points out, for Mandeville, Hume and Adam Smith it was the self-generating character of rising expectation, new tastes and components that broke the old circle of growth and decay and gave rise to a society capable of endless expansion.

inescapable growth of science that will result in greater material welfare, and will simultaneously generate and solve the problems of materialism.

Organisational progress and the emergence of intellectual property rights

With the acceptance of the potential for endless accumulation of knowledge, and of the need to turn that knowledge to practical account, went the (moral and practical) acceptance of material want (it being acceptable, relevant and even laudable, for every person to seek to improve their material conditions). Material comfort was not to remain something essentially reserved for a narrow elite or those entitled to it by birth, but something to be acquired and aspired to by all. Society at the onset of the industrial revolution responded to this new found generalised want with unique financial, technological, political/administrative, and legal mechanisms that would enable mass production and distribution of goods for all consumers. Thus material progress went hand-in-hand with organisational progress: the development of new insights concerning human organisation and institutions, largely structured around the central notion of the market. The industrial revolution progressively provided both the goods that the masses had come to aspire to acquire, the means (in income in salaries and wages) to acquire them, and the necessary institutions to organise their acquisition, thus creating something of a self-perpetuating engine of growth.

At the same time an increasing development of large scale co-operative systems, and greater dependence on accumulation or resources and knowledge made voluminous and cheap production possible, as well as distribution (e.g. by train; with the aid of the telegraph), and enabled high levels of consumption and ownership. Society became increasingly complex and based on specialisation, emphasising the uniqueness of the individual (with special ability) and the importance of knowledge accumulation and use.

It is not surprising that alongside innovations in administration,²³ a notion of intellectual *property* arose and gained credence at such a time as an organisational instrument in a new market dependent on novelty, progress and constant change.²⁴ It reflected both the new attitude to property, the notion of a reward of property rights for those who achieved more with less (for that is what successful new technologies must do, increase the productivity of labour and real inputs), and also an increasing belief in the unique contribution of the individual.²⁵ It matched the crucial progressivist notion

²³ Coulter points out that the industrial revolution coincided with a governmental revolution based largely on Benthamist theory and practical determinants (*laissez faire* as opposed to statist or interventionist administration), see Coulter (above n.6 at p.5).

²⁴ See further Sherman & Bently, *The Making of Modern Intellectual Property Law* (Cambridge University Press, 1999).

²⁵ See D. Saunders, above n.8. Saunders refers to the emergence during the 17th and 18th century of the romantic individualistic notion of authorship, which he opposes to more structural or post-constructivist notions that see the author as secondary to the text (or whatever other creation). See also M. Rose, *Authors and Owners*, (Harvard University Press, 1993). See also P.O. Long, "Invention, authorship, intellectual property, and the origin of patents: notes toward a conceptual history", *Technology & Culture*, 1991, pp.846–84.

that technological change or innovation would result in increased individual welfare.

The creative individual

As well as the application of scientific method, it was the intellectual spark of the individual inventor or thinker that made the constant accumulation of new knowledge possible, and that enabled its practical use.²⁶ Thinkers of those times, (such as Fourier, Saint-Simon and Comte in the social sciences²⁷) saw themselves as *original* thinkers. They saw ideas as originating within their unique selves, reflecting an idealised romantic view of creation, rather than a view of creation as some dialectical interaction with the past, a reinterpretation, review or selection from history.²⁸ The above-mentioned early sociologists also emphasised the essential egoistic competitiveness of man, and Darwinism (the survival of the fittest and natural selection) seemed to confirm those individualistic and competitive notions. Individual creativity became viewed as an indispensable motor of progress in arts and sciences, leading, for instance, to a view of art which emphasises originality above aesthetics. Modernism as individuality was born of a belief in progress.

MODERN CRITIQUES OF THE BELIEF IN PROGRESS

The material merry-go-round

In modern times progress is viewed in a material rather than personal, social and spiritual sense. Even so, although increases in material well-being do not necessarily result in greater spiritual well-being, happiness or "satisfaction", it cannot be disputed that health and minimal material comfort are preconditions for happiness.²⁹ Nonetheless, contentment and satisfaction seem to depend on very basic elements of

²⁶ During Elizabethan and earlier times the emphasis of patents law was on innovation, not invention: most patents were awarded for importation of technologies and manufacture (import franchises) rather than rewarding practical application of new knowledge in a theoretical or potential sense: see Coulter, above n.6, at p.10; from the early 1700s the consideration of a patent grant became publication of details rather than an obligation to put into practice; this seems to confirm the greater emphasis that came to be placed on progress through generation of knowledge, and education and dissemination as a generalised basis for intellectual property law (at p.15). The patent system was seen by many industrialists of the industrial revolution as an important source of information (at p.24).

²⁷ As pointed out by Brome, see above n.10.

²⁸ For an interesting comparison with the prevailing view of creation in China during the period when notions of intellectual property were developing in the West, see W.P. Alford, *To Steal a Book is an Elegant Offence: Intellectual Property Law in Chinese Civilisation* (Stanford University Press, 1995); concerning authorship see Saunders, above n.8; also, e.g. M. Woodmansee, "The genius and the copyright: economic and legal conditions of the emergence of the author" (1984) 17 *Eighteenth Century Studies* 425. Concerning inventors, see F. Machlup, "Patents" in D. Sills (ed.) *The International Encyclopaedia of the Social Sciences II*: 46-471 (Macmillan, 1968). Machlup points out that the early history of patents law owes more to the state's desire to strengthen itself than to acknowledgment of any inherent property interests of an inventor (as referred to in Alford, see above in this footnote).

²⁹ See above, N. Rescher, *Unpopular essays on technological progress* (University of Pittsburgh Press, 1980).

the human condition, factors largely untouched by technological progress,³⁰ and it is obvious that science and technology generate a lot of unhappiness and material problems,³¹ such as environmental pollution, social isolation and deterioration of living conditions. But in the contemporary view of progress, developing knowledge is always ready to solve those problems, thus generating a form of circular or self-sufficient progress, a kind of material merry-go-round.³²

It may be that an idea of progress of this kind is shallow in its over-emphasis on material wants. Social or societal progress and personal moral improvement is no longer viewed as the result of the rational application of knowledge (structural modifications that will have unavoidably positive results), but as a question of individual political or moral choice.

But if the essence of the belief in progress is that through the accumulation of knowledge and its practical application, mankind can improve *at least the material conditions* of human existence, it is clear that the ideology of progress is alive and well, certainly if a degree of material satisfaction is a pre-condition for happiness. The economic structures of regulated but basically free markets reflect the promise of political economy that the market, the mechanism for the generation and satisfaction of greater and different wants, is the motor of a productive, active and working society. At the core lies a belief in the progressive improvement of the degree of satisfaction of material want.

Technological doom

One critique of the prevalent belief in material progress is that it results in increased technological dependency and determinism: individuals are dominated by the pervasive demands of technology, resulting in a loss of individual freedom and thus of personal fulfilment and happiness. In the extreme form of this critique, technology, as the main emanation of material progress, represents a threat to our existence: nuclear Armageddon beckons; or the explosion of human population will leave us with a food-base vulnerable to the sudden and uncontrollable proliferation of deadly diseases, etc.

Furthermore, whereas Lasch refers to a modern ideology of progress as a simple belief in a continuous infinite development of knowledge and material transformation, environmental science has posited that there may in fact be limits to this process, imposed by *finite* resources. Given an increase in population and finite resources, progress cannot be continuous; a stage may come where the only progress is in equity rather than in absolute material wealth. On this view a belief in progress and the pursuit of material wealth is misguided and dangerous.

Against that it can be argued that mankind does not have the luxury to choose: only a solid belief in progress (as accumulation of new knowledge) will lead us out of

³⁰ *ibid.*, Rescher refers to polls that show little change in people's perception of their own happiness with improvements in their material conditions; also polls that show that people believe there is a negative correlation between progress and happiness.

³¹ See, e.g. E.A. Fano, "'Wastage of men': technological progress and unemployment in the United States", 32 *Technology and Culture* 264 (July 1991).

³² See, e.g. B. Appleyard, *Understanding the Present: Science and the Soul of Modern Man* (Doubleday, 1992).

the maze of environmental, technological and practical conundrums already posed by material progress itself. In other words, if science and technology have their risks they also have their promise: they are the only possible way to deal with the dangers inherent within them. Science will cure science, and we are thus inescapably bound to pursue science in a necessary vicious circle. Some high priests of progress even believe that the pursuit of all scientific avenues will lead to a heroic future, a city of God created by humans (taking us back to the early nineteenth-century view of infinitely improvable human nature and social conditions): genetic manipulation will weed out unhappiness of any sort amongst us!

Progress and cultural imperialism

An often identified danger of a belief in progress is that of cultural annihilation and (post-) imperialism as well as "crude celebrations of national and racial destiny".³³ Since a belief in progress implies that the society progressing is getting better, it is often contrasted with a society that is judged stagnant at a lower stage of development. Even if modern-day idealists no longer believe that each individual member of a pre-industrial society can be improved by contact with the accumulated knowledge of a society that has "progressed further", the conviction that such communities will benefit from the introduction of the cultural and material acquisitions of "more advanced" societies is still prevalent. However, this "introduction" will inevitably result in at least partial destruction of the culture of the "primitive" society. Furthermore, progressivist ideology is often dangerously associated with pursuit of racial or national hegemony: the rhetoric of progress is apt to be destructive of other societies when employed in this context (whether cloaked in terms of dialectic materialism or in less structured ways).

Modern belief in progress

But many people continue to believe in progress because they recognise it as the essence of an existence with hope; it is virtually a religious belief, a belief that gives purpose to life itself. Lasch, for instance, refers to the belief in progress of some of the principal historians of progress, such as Nisbet and J.H. Plumb, as well as that of W. Wagar, and A.J.P. Taylor who said that cultural pessimism is the vice of disgruntled intellectuals.³⁴ Belief in progress is for many exactly that: a belief without which existence is meaningless; this is a culturally bound, but widely held view.

It is worth noting that belief in progress is also a conception of history, *i.e.* a view of history, a revision of history.³⁵ I have already pointed out that some see a scientific society as one that is apt to continue; that it precludes the rise and fall of nations. It may also be that, to adapt Fukuyama's famous dictum, the scientific society is the death of

³³ See Lasch, above n.10.

³⁴ *ibid.*

³⁵ See, e.g. A.M. Melzer, J. Weinberger, M.R. Zinman (eds) *History and the Idea of Progress* (Cornell University Press, 1995); C. Dawson, *Progress and Religion: an Historical Enquiry* (Sheed & Ward, 1929); J.A. Bernstein, *Progress and the Search for Meaning: a Philosophical and Historical Enquiry* (Fairleigh Dickinson University Press, 1993).

history.³⁶ Inevitably, a progressivist or scientific society is one that relies heavily on communication, is anti-isolationist and therefore global; if history is the competitive striving of nations and ideologies, then a scientific society is indeed the death of history because it is anti-ideological, because rationalist, and anti-national, because national boundaries mean nothing to knowledge and science.

BELIEF IN PROGRESS, AND INTELLECTUAL PROPERTY LAW

Progress and property

An individual may either believe in progress or not, but implicit belief in the benefits of progress is undeniably embedded in western culture. Growing numbers of Europeans believed, during the nineteenth century and beyond, that society would benefit from bestowing (property rights as) incentives on authors and inventors to engage in creative work and disseminate its results. That is still a fundamentally accepted notion, perfectly rational within the surrounding cultural constructs of a capitalist western democracy.³⁷ It is reflected in intellectual property law in general, and in patents law in particular.³⁸

Key characteristics of belief in progress

Before exploring how intellectual property law reflects a belief in progress, it is as well to recapitulate the key characteristics of such a belief as they have emerged from the foregoing account. The constituent elements of the contemporary belief in progress, largely shorn of its heroic elements and reduced to a belief in *material* advancement can be said to be: (1) belief in the limitless accumulation of new knowledge; (2) belief in the essential contribution of the individual mind to the accumulation of valuable new knowledge; (3) belief in the need and potential for practical application of knowledge; (4) belief that material acquisition is good; (5) belief that scientific and technological development will allow an ever-expanding and ever-changing need for material satisfaction to be met; and (6) belief in the autonomous generation of complex social organisation to allow the goal of material gratification of all to be met. A progressivist view thus emphasises creativity, the constant creation of the new, at the expense of imitation, repetition, reinterpretation of the old; the gratification of material wants above all other, including spiritual needs; and individuality. It also tends to automatically equate technological change with an increase in the welfare of the individual, elevating innovation to the position of a *good per se*.

The following paragraphs contain an initial exploration of how some of the characteristics of the contemporary belief in progress are reflected in the structures and principles of intellectual property law.

³⁶ F. Fukuyama, *The End of History and the Last Man* (New York Free Press, 1992).

³⁷ Important in a materialist and progressivist society is the concept of choice and free will: democracy itself reflects the perceived need to allow the people themselves to participate in the fundamental choices of society.

³⁸ An important point here is that intellectual property is a reflection of materialist progress, rather than a cause of it; see further n.9.

Belief in the limitless accumulation of new knowledge: novelty, flexibility, and limited terms*Novelty*

A requirement of novelty in one form or another is fundamental to the statutory forms of intellectual property. Knowledge that is not novel is not patentable, and an express requirement of novelty also applies in designs law.³⁹ Intellectual property law thus emphasises the value of the new over the old, and reflects the progressivist emphasis on the accumulation of new knowledge as the basis for improvement of society. Intellectual property stresses the value of creation over imitation. The law also recognises no boundaries to the human potential for generating new knowledge.

Although the emphasis of progress thinking is on new knowledge, it also recognises that new breakthroughs can only be made by those who have access to existing knowledge. Knowledge is cumulative and the ability to acquire, assimilate but also share and communicate knowledge is vital to the notion of progress. In terms of novelty this is reflected in the fact that although some form of novelty is required, such novelty need not be great: in that which is novel there is commonly much that is old. For instance, in copyright, the level of originality is low, in particular in Australia,⁴⁰ and originality does not equate to a universal test of novelty in any case, requiring only independent creation. In patents law, although inventiveness is now assessed in the light of global data, all that is required is that the inventive step *not be obvious* to a person skilled in the art. Intellectual property law recognises the importance of communication of knowledge in other ways as well: through the temporary nature of rights; through such principles as the idea/expression distinction in copyright law and the requirement of enabling publication in patents law.

Flexibility

The courts have consistently held that intellectual property law should be interpreted flexibly enough to accommodate whatever new knowledge or new technology may be invented in the future. Thus the *High Court in Grain Pool of WA v The Commonwealth* said: "A universal feature of the twentieth century has been the dynamic progress and momentum of science and technology. The principal inventions of the century, which include flight, applied nuclear fission, informatics and biogenetics were all undiscovered, and for the most part unconceived, in 1900. Yet the Constitution certainly envisaged that the Commonwealth was entering an age of special technological inventiveness. So much can be seen in the specific provision of the post and telecommunications power in such wide terms. Given the objects of the head of power, which include the facilitation and protection of intellectual inventiveness within Australia, it would be specially destructive of the achievement of those objects if the grant of power were to be attached—even as a primary reference point—to the

³⁹ The requirement of originality in copyright law is often said not to be a requirement of novelty; for practical purposes it amounts to little else. In terms of trade marks law, the requirement of distinctiveness incorporates a limited novelty requirement: a mark that is not new in terms of its use in relation to a class of goods or services is not likely to be sufficiently distinctive. A mark that is not new to some degree is also more likely to be confusing or deceptive.

⁴⁰ See *Desktop Marketing Systems Pty Ltd v Telstra Corp Ltd* [2002] F.C.A.F.C. 112 (May 15, 2002).

particular notions which, up to 1900, 'copyrights, patents of inventions and designs and trade marks' had been protected by the law. I do not believe that such an approach is necessary. It is certainly not desirable." (at HCA paras [131]–[132]); and further: "To the full extent that the language of the Constitution warrants and that other important values which it upholds permit, meaning should be given to a provision such as s.51(xviii) in a way that allows the section to respond to the very great variety of inventiveness that may be considered by the Federal Parliament to necessitate protection for the 'products of intellectual effort'. The future directions of such inventiveness are unknowable and likely to outstrip even our present vivid imaginations." (at HCA para.[133]).⁴¹ These passages closely reflect what the High Court said almost half a century earlier in the NRDC case.⁴²

Temporariness

Intellectual property rights are also temporary, *i.e.* most (except for rights related to goodwill) are granted for a limited period. Theoretically new knowledge produced will eventually be available to society, which will be able to employ it without restrictions. A more sceptical view might suggest that the temporariness of exclusive rights recognises that most knowledge rapidly becomes obsolete. In other words, knowledge is overtaken by new knowledge and new applications of knowledge. In any case, the periodicity clearly implies a belief in constant progress by accumulation of new knowledge. Knowledge is never finite, always there to be overtaken and added to.

Belief in the essential contribution of the individual mind to the accumulation of new knowledge: individuality in intellectual property law

The notion of individual human ingeniousness is fundamental to progress thinking. The accumulation of knowledge does not happen automatically or socially, but is always connected to individual creativity. Intellectual property law reflects this insistence on the importance of the contribution of the individual mind. Both in copyright and in patents law the grant of exclusive rights is dependent on the contribution by a named individual author or inventor.⁴³ Copyright law requires that a work originate with the author, and that the work carry at least a minimal authorial imprint. Patents law makes the grant of a monopoly dependent on the identification of at least a "scintilla" of human inventiveness. Even in a period when inventions are commonly made by teams working systematically with corporate or fiscal resources, the scale of investment is not sufficient to warrant a grant of a patent without the necessary spark of human inventiveness. This notion of inventiveness is a difficult one in a hi-tech context, but it remains a mainstay of patents law.⁴⁴

⁴¹ Other examples of judicial insistence on flexible accommodation of new technologies are to be found in cases regarding computer-implemented inventions: see, *e.g.* *International Business Machines Corp v Smith* (1992) A.I.P.C. 90–853.

⁴² *National Research Development Corp v Commission of Patents* [1959] 102 C.L.R. 252.

⁴³ Even if a work or invention is created by a group, individuals must be nominated, and will be treated as joint authors or inventors.

⁴⁴ See, *e.g.* *Genentech Inc v Wellcome Foundation Ltd* (1989) 15 I.P.R. 423. Recently in Australia the standard of inventiveness in patents law has been increased: see the Patents Amendment Act 2001 (Cth).

**Belief in the need and the potential for practical application of knowledge:
Practical application and material expression in intellectual property law**

Progressivism stresses not the value of knowledge or education *per se* but the practical use of knowledge. Central to the belief in material progress is the notion that new technology will *automatically* enhance human welfare. Intellectual property stresses material advantage, *i.e.* putting knowledge to a practical use. A patent will only be granted for an invention that has industrial application, and is useful in the patent law sense, *i.e.* will obtain the results that it claims. Theoretical knowledge, such as discoveries of laws of nature, is excluded from reward: it is not patentable subject-matter. It is only through participation in the market that an intellectual property owner will derive any income or reward, *i.e.* it is only if there is *some actual uptake* of the technology that the patentee will benefit. Patents law also does not distinguish between technologies on the basis of their *actual* potential for the improvement of human welfare. It is a neutral system that makes no value judgments: *any* technology, whether product or process, as long as it is new, inventive and relevant to the economy, will do for the grant of a monopoly. Designs law as well, reflects an emphasis on the practical application or expression of new ideas.

In copyright law it is only when ideas are condensed into some useful format that they attract exclusive statutory rights; ideas *per se* do not have copyright protection. Again the law does not attempt to make any *a priori* value judgement about works; the courts have consistently shied away from making decisions about subsistence of copyright protection on the basis of aesthetic, artistic or, other value-laden criteria.⁴⁵

The nature of the rights that come with intellectual property is also illustrative: they are overwhelmingly rights to *material exploitation*, rather than authorial connection: the right to publish, to reproduce, etc., copyright works, to exploit patented inventions, to apply registered designs, etc. Moral rights in copyright might illustrate how it need not be thus; in other words, how rights can have a non-material or non-exploitative character. Yet even in that context it can and has been argued that the main effect of moral rights is to strengthen the economic position of the author.⁴⁶ Although in most national regimes moral rights cannot generally be waived, there is usually provision for waiver or consent in individual cases.

Belief that material acquisition is good; that scientific and technological development will allow an ever expanding and ever changing need for material satisfaction to be met, by means of complex social organisation: intellectual property's rewards

An essential element of progressivist thought is that practical advantages should accumulate to the world, people as a whole, not be reserved to a chosen few (see above). Intellectual property reflects this, through its subjection of technology to the forces of the market, *i.e.* of individual consumer choice. Rewards for intellectual

⁴⁵ The exception to the rule is works of artistic craftsmanship, but even there the courts have attempted to reduce the need to make an artistic judgment as far as possible to the application of *objective* criteria: see *Coogi Australia Pty Ltd v Hysport International Pty Ltd* [1998] F.C.A. 1059 (August 21, 1998).

⁴⁶ See, *e.g.* Copyright Law Review Committee, Report on Moral Rights (Australia 1988).

endeavour are not direct but via *exploitation in the marketplace*.⁴⁷ In other words, the promise of intellectual property law is to subject innovation to *ex post* decisions by the market, rather than *ex ante* decisions by political decision-makers. Thus individual want and technological change are in a sense co-ordinated. The laws of supply and demand will mean that the most popular technologies are made available at the best prices, thus maximising the satisfaction of individual want. Intellectual property does not value or reward knowledge *per se*, but permits and encourages the maximum circulation of practical intellectual goods through the operation of markets. In fact, intellectual property law is structured as it is precisely to deny political elites the power to grant monopolies.⁴⁸

PROGRESS AND INTELLECTUAL PROPERTY LAW: SOME RECENT EXAMPLES

Recent debates

The ideology of material progress is under attack in society as a whole, be it by environmentalists, religious groups or radical political activists. Intellectual property law forms an important battleground for the fight between belief and scepticism about the promises of progress. Recent debates concerning intellectual property policy reflect increasingly divergent opinions about the role of progress in modern society.⁴⁹ For instance, the following two controversies in IP have profound resonance in terms of scepticism about, or belief in progress:

- Intellectual property rights over traditional art and knowledge: the social structures surrounding artistic and technical expression in some traditional indigenous societies are fundamentally at odds with most of the tenets of intellectual property law. Hence the difficult debate concerning the accommodation of traditional knowledge and art within intellectual property versus the development of *sui generis* forms of protection. Hence also the struggle of the courts to find legal means to accommodate the aspirations of aboriginal people in Australia in the context of copyright law.⁵⁰ If traditional indigenous communities reject the

⁴⁷ That does not mean that direct rewards for intellectual endeavour do not exist: the academic merit system is one example. For a comparison with a system which did grant direct rewards for invention, see W. van Caenegem, "Inventions in Russia: From public Good to Private Property" (1993) 4 A.I.P.J. 232.

⁴⁸ Merges makes this point forcefully: the grant of intellectual property powers in the US Constitution "was intended to provide a positive incentive for technological and literary progress while avoiding the abuse of monopoly privileges" (see P. Merges, "The Proper Scope of the Copyright and Patent Power", below n.62, at p.47). If the choice is between the grant of monopolies by political processes or by neutral administrative processes, the latter is clearly the more beneficial in terms of social welfare.

⁴⁹ See, e.g. P.A. David, "The evolution of intellectual property institutions", MERIT Research Memorandum 93-009, 1993. See also W. Alderson, V. Terpstra, S.J. Shapiro (eds), *Patents and Progress, The Sources and Impact of Advancing Technology* (RD Irwin Inc, 1965).

⁵⁰ See, e.g. *Yumbulul v Reserve Bank of Australia* (1991) 21 I.P.R. 481; *Milpurrruru v Indofurn* (1995) 30 I.P.R. 209.

western view of progress, favouring adherence to tradition over the search for novelty, respect for the natural environment and living things over blind adherence to the technological paradigm, sociability over individualism, and continuity over temporariness, then it is difficult to see how traditional knowledge and art can be accommodated within intellectual property law. From this point of view there is no avoiding the conclusion that only custom-made forms of protection are appropriate.

- Patentability and human health: both at the level of patentability of human treatment methods within Australia and at the level of patentability of essential medicines in underdeveloped countries. This debate pits the rights of the individual against progressivist dogma. One view is that it is acceptable that individuals suffer for the sake of the progress of society as a whole. The other view says that this takes progressivist instrumentalism too far, at least in some circumstances, as is further exposed below.

Modern society's ambiguous attitude towards the idea of progress lies close to the surface of the above-mentioned debates. Some recent decisions of Australian courts are analysed further in that light below: first, the cases of *Rescare*⁵¹ and *Bristol-Myers Squibb*⁵² about patents over medical treatment methods (with an aside to the High Court's remarks in the *Grain Pool*⁵³ case); and secondly, the *Bulun Bulun* case, about copyright in aboriginal art.

Rescare, Bristol-Myers Squibb and The Grain Pool of WA v The Commonwealth

In both *Rescare* and *Bristol-Myers Squibb*, one of the legal issues was whether methods of human treatment, as opposed to products used in human treatment—such as pharmaceutical substances—were patentable subject-matter. This question had never been bindingly determined by an Australian court, certainly where the method is therapeutic or diagnostic rather than cosmetic. Ultimately the question was answered in the affirmative.⁵⁴

The cost implications of patent grant are regularly rehearsed: monopolies lessen competition and increase prices thus imposing a financial and economic cost on society. But at the heart of the question in *Rescare* and *Bristol-Myers* lies a more perverse trade-off: to serve the *public interest* of encouraging research into new treatment methods, *i.e.* the progress of medicine, the patentee is to be granted the statutory power to deny a suffering patient the *private right* to the most effective treatment.⁵⁵ In other words, the relief of actual suffering will be traded off against the promise of speculative future

⁵¹ *Anaesthetic Supplies Pty Ltd v Rescare Ltd* (1994) 50 F.C.R. 1 and *Anaesthetic Supplies Pty Ltd v Rescare Ltd* (1992) 25 I.P.R. 119.

⁵² *Bristol-Myers Squibb Co v F.H. Faulding & Co Ltd* [1998] F.C.A. 860 (July 22, 1998); and *Bristol-Myers Squibb Co v F.H. Faulding & Co Ltd* [2000] F.C.A. 316 (March 22, 2000).

⁵³ *The Grain Pool of WA v The Commonwealth* [2000] H.C.A. 14 (March 23, 2000).

⁵⁴ One of the major implications of the decisions is that new and inventive uses and methods of administering known pharmaceutical substances are confirmed as patentable subject-matter.

⁵⁵ The same applies when we consider patents over pharmaceutical substances, but is not so starkly presented since the question of patentability of drugs is well settled. At the international level things are different: the HIV/AIDS drug patents issue is the best example.

advances in technology. Confirming patentability, as a majority of the Full Federal Court ultimately did, implies confidence that knowledge can and will be applied to the benefit of society as a whole, and that patents grant has a significant role to play in that process. The implication that an element of unquestioning *belief* in the pursuit of material progress is at work is inescapable. A sceptic might have pointed out that material progress comes at a cost, its benefits are not universally shared, and its untrammelled pursuit may destroy the globe. The sacrifice of the nominal patient who is denied medical treatment because of the enforcement of patent rights, may in fact come at a cost not only to herself, but also to society as a whole.

The view of the majority of judges in both cases was that if the central tenet of patents law holds true, *i.e.* that patent grant encourages innovation, then there is nothing to be gained from excising some area of technology, such as medical treatment methods, from patentability.⁵⁶ Working within the constraints of the system, this makes perfect sense. Even judges who came to the opposite conclusion about patentability shared the view that knowledge and information is exchanged, not for its own sake, but for the practical purpose of improving treatment of patients. Thus Sheppard J. opposed patent grant not so much because he was sceptical about the trade-off between individual suffering and general progress, but because he felt patenting would disturb established patterns of teaching, learning and communication.

Questions about the place of patents law in the pursuit of material progress are only implicit in these cases, partly because the connection between intellectual property and the pursuit of progress remains unexpressed in Australian legislation. Unlike in the United States,⁵⁷ the functional or instrumental role of intellectual property law as an institution promoting "progress" is not recognised expressly in the constitution of Australia (nor in the laws of the United Kingdom). In the Constitution of the Commonwealth of Australia, the Commonwealth was granted the power over intellectual property, because differences in regulation between the various states would have caused many difficulties.⁵⁸ There is no functional limitation on the power, *i.e.* parliament is not limited to applying the power to a *certain end*, as long as the legislation is concerned with intellectual property. Nonetheless the High Court placed a progressivist gloss on the power in *Grain Pool of WA v The Commonwealth*: "Upon this basis, the lawmaking power with respect to 'patents of inventions' within s.51(xviii) involves the provision by the state to the grantee of exclusive rights for a limited time to exploit, and to authorise other persons to exploit, a novel object or process of *potential benefit to the community* in respect of which a patent may be granted and which is recorded in a

⁵⁶ In their view this argument gains added strength from the fact that pharmaceutical substances are patentable.

⁵⁷ See further below n.62.

⁵⁸ Furthermore, by the time of federation, intellectual property law was the subject of important multilateral treaty systems, the Berne Convention concerning copyright, and the Paris Convention concerning industrial property. But in interpreting the extent of the power, the courts have predictably examined the essential characteristics of intellectual property law (*i.e.* of patents, designs, copyright and trade marks law). In *Grain Pool of WA v The Commonwealth*, the Court said: "The specific inclusion of s.51(xviii) in the Australian Constitution affords a further reason for assigning to s.51(xviii) a meaning that permits the protection of 'products of intellectual effort' in the variety in which such products now manifest themselves and the even greater variety in which they can be expected to appear in the future." (at HCA para.[134]).

public register upon conditions of disclosure. This is the bedrock. Nothing more is required by the 'really essential characteristics' of 'patents of inventions' ".⁵⁹

In fact nothing in intellectual property law in Australia actually requires a "potential benefit to the community". Patents for inventions will be granted whether or not the invention will benefit the community: this is not the nature of the patentability enquiry. The most trivial invention (a new-fangled rattle) is equally entitled to a patent as a life-saving one (a cure for cancer). What emerges from the terms used by the Court, is that new technology is automatically equated with benefit to the community, *i.e.* a strong belief that the application of knowledge results in social progress in the wide sense, *i.e.* benefits society as a whole.

The Court in *Grain Pool of WA* also referred to the US Constitution, which is in fact quite different from the Australian constitution in this regard, since it expressly imposes a functional limitation on the power to legislate with respect to intellectual property. In the United States, the constitutional head of power authorises Congress "to promote the Progress of Science and useful Arts" by granting exclusive rights to authors and inventors "for limited times"⁶⁰ (emphasis added). The High Court made no further reference to the functional limitations that this imposes on the power of Congress, understandably so, as the Australian constitution does not impose this limitation.

Whereas the purpose of the Australian provision was in fact simply to grant the power to the Federal Parliament, the purpose of the US provision was to grant *and limit* the power, to prevent abusive grants of monopoly. In the United States the functional limitation has an important impact, and the courts have used the terms "to promote the Progress of Science and useful Arts" to ensure that intellectual property laws grant monopolies over knowledge that is new or inventive, and not over existing knowledge.⁶¹ An unspoken prejudice lies in the constitutional terminology: that technological change will indeed benefit society as a whole; this is the essential characteristic of a belief in progress.

Bulun Bulun v R & TT Textiles Pty Ltd

Thinking about intellectual property law in terms of belief in progress, reveals that intellectual property regimes are determined by certain cultural paradigms.⁶² However, the pursuit of material progress is not common, or at least not as central, to all cultures. The position of indigenous culture and knowledge in some (post-) industrial societies acutely illustrates this point. In Australia, the structures of intellectual property law, including patents law, do not necessarily conform to the rules and customs concerning control of knowledge in traditional indigenous communities. The law's uniform

⁵⁹ At HCA para.[135]; emphasis added. The case concerned the question whether the Plant Variety Rights Act 1987 (Cth) fell within the intellectual property power of the commonwealth (*i.e.* within by s.51(xviii) of the Constitution).

⁶⁰ Constitution of the United States of America, Art.1, s.8.

⁶¹ As Merges explains it, monopolies encourage rent-seeking behaviour from interest groups that results in a deadweight loss; this effect is deflected if the advantage to society in terms of new discoveries, etc., outweighs the cost to society of granting a private monopoly: see P. Merges, "The Proper Scope of the Copyright and Patent Power" (2000) *Harvard Journal on Legislation* 45.

⁶² See in this vein, R.J. Coombe, "Objects of property and subjects of politics: intellectual property laws and democratic dialogue", (1991) *Texas L.R.* 69, 1853.

insistence on novelty and inventiveness, on individuality of creation, and on personal property and ownership, are ill suited to communal control, validation through tradition, oral transmission, and religious significance of knowledge and expression.⁶³

In *Bulun Bulun* Von Doussa J. recognised the fundamental clash between aboriginal and western notions of control over knowledge. He said:

"These proceedings represent another step by Aboriginal people to have communal title in their traditional ritual knowledge, and in particular in their artwork, recognised and protected by the Australian legal system. The inadequacies of statutory remedies under the Copyright Act 1976 as a means of protecting communal ownership have been noted in earlier decisions of this Court: see *Yumbulul v Reserve Bank of Australia* (1991) 21 I.P.R. 481 at 490 and *Milpururru v Indofurn Pty Ltd* (1994) 54 F.C.R. 240 at 247. See also McKeough and Stewart 'Intellectual Property and the Dreaming', published in *Indigenous Australia and the Law*, Johnston, Hinton & Rigney eds (1997); Henderson 'What's in a Painting? The Cultural Harm of Unauthorised Reproduction' (1995) 17 Syd Law Rev 591 at 593; Ellison, 'Unauthorised Reproduction of Traditional Aboriginal Art' (1994) 17 U.N.S.W.L.J. 327; and 'Stopping the Rip-Offs: Intellectual Property Protection for Aboriginal and Torres Strait Islander Peoples' (1994, National Capital Printing) where it was said at p.6: 'While joint authorship of a work by two or more authors is recognised by the Copyright Act, collective ownership by reference to any other criterion, for example, membership of the author of a community whose customary laws invest the community with ownership of any creation of its members is not recognised'."

The courts may make some attempt to reconcile opposing views by adopting innovative legal constructs as von Doussa J. did in this case; but this does not alter the fact that it is an attempt to reconcile the irreconcilable. At the bottom lies a different view of society and of the place of knowledge in society, of progress as promise versus progress as threat: to cohesion, to tradition, to belief, as well as a material threat to health and environment. *Bulun Bulun* is a reminder that the ideology of material progress which underpins much of intellectual property law is not universally shared.

CONCLUSION

Many current controversies in intellectual property law can be analysed in terms of contrasting opinions about progress. But "traditional" intellectual property is firmly

⁶³ See M. Blakeney, "Bioprospecting and the protection of traditional medical knowledge of indigenous peoples: an Australian perspective" [1997] E.I.P.R. 198; P. Drahos, "Indigenous knowledge and the duties of intellectual property owners" (1997) 11 I.P.J. 179; L.A. Whitt, "Indigenous peoples, intellectual property and the new imperial science" (1998) *Oklahoma City University Law Review* 211; C. Haight Farley, "Protecting folklore of indigenous peoples: is intellectual property the answer?" (1997) *Connecticut L.R.* 30, 1; see D.R. Headrick, *The tentacles of progress: technology transfer in the age of imperialism, 1850-1940* (Oxford University Press, 1988). As to the possible recognition of communal title to traditional ritual knowledge in Aboriginal communities, see also *John Bulun Bulun v R. & T.T. Textiles Pty Ltd* [1998] F.C.A. 1082 (September 3, 1998); *Milpururru v Indofurn Pty Ltd* (1994) 54 F.C.R. 240.

anchored to a world view in which the pursuit of material progress plays a central role. The economic motor and political bedrock of this pursuit is the competitive application of new knowledge within the framework of proprietary rights. However, this framework is now more frequently questioned, globally and nationally, expressly or implicitly. It remains to be seen to what extent, in the context of current global debates about intellectual property, the fundamental preconceptions about progress that underlie IP will come up for debate. History reveals that progress is a relative concept, that its fruits are rarely universally shared, and that the dogmatic pursuit of material progress can come at a considerable social, environmental and cultural cost. It is equally clear that intellectual property law plays an important institutional role in fulfilling the promises of progress. Maybe it can play an increasing role in countering its threats.